(1)

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK : A) CONSTRUCTION OF CLASSROOMS AND PROVIDING BASIC AMENITIES TO YELAHANKA GOVT FIRST GRADE COLLEGE IN YELAHANKA DIVISION

PRE-MEASUREMENT

3rd AND PART BILL

Pre-Measurements Recorded On:

SL NO / BOQ NO	Description of Item	Unit	No	No	Length (m)	Breadth (m)	Depth (m)	QTY	Remarks
Item No. 01	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the exavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications.and directions of the Engineer in charge.(Page no-6, Item No-2.4 of PWD SR 2018-19.).								
	Measurements taken on								
	Canteen Shed Foundation								
	Footings	Cum	10	1	2.10	2.10	1.65	72.77	
					Total Qty			**72.77**	**Cum**
Item No. 03	Providing and laying in position plain cement concrete of mix 1:4:8(M7.5)with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregtes @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications and directions of the Engineer in charge. Qty Upto 125%								
	Measurements taken on								
	Canteen Shed Foundation								
	Footings	Cum	10	1	2.10	2.10	0.15	6.62	
					Total Qty			**6.62**	**Cum**
Item No. 08	KSRB 4-6.1 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specificaitons. Specification No. KBS 4.6.2, (Page no-16, Item No-4.28 of PWD SR 2018-19.)..								
	Measurements taken on								
	Canteen Shed Foundation								
	Footings	Sqm	10	4	1.50		0.60	36.00	
					Total Qty			**36.00**	**Sqm**
Item No. 10	KSRB 4-6.5 : Providing and removing centering, shuttering, strutting, propping etc. and Removal of form Work for columns, pillars, piers, post and struts, square / rectangular / polygon in plan including cost of all materials, labour complete as per specificaiton. Specification No. KBS 4.6.2, Pg No 16, Item No 4.32								
	Measurements taken on								
	Canteen Shed Foundation								
	Pedestals	Sqm	10	4	0.30		1.35	16.20	
					Total Qty			**16.20**	**Sqm**

OSR INFRATECH Date..... BENGALURU

CONTRACTOR PMC ASSISTANT ENGINEER

Asst. Executive Engineer
ASSISTANT EXECUTIVE ENGINEER
Project Division
Yelahanka Zone

3rd AND PART BILL									
Pre-Measurements Recorded On:									
SL NO / BOQ NO	Description of Item	Unit	No	No	Length (m)	Breadth (m)	Depth (m)	QTY	Remarks
Item No. 16	Providing and laying in position reinforced cement concrete of Design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregtes @ 0.47cum, with super plasticisers @ 3 liters confirming to is 9103-1999 reafirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications.and directions of the Engineer in charge. Specification No. KBS 4.1,4.6 (Page no-14, Item								
	Measurements taken on								
	Canteen Shed Foundation								
	Footings	Cum	10	1	1.50	1.50	0.60	13.50	
	Pedestals	Cum	10	1	0.30	0.30	1.35	1.22	
							Total Qty	**14.72**	**Cum**

Item No. 28	KSRB 4.9.2 : Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 (Pg No.18 Item No.4.46.2 PWD SR 2018-19) (Ground Floor)								
	RA BILL1								
	Measurements taken on								
	Ground Floor and Below								
	Footings	Tonne						10.30	
	Plinth Beam	Tonne						2.33	
	Column upto Plinth top	Tonne						0.86	
	Columns @ GF	Tonne						2.46	
	Roof Beam @ GF	Tonne						5.92	
	Roof Slab @ GF	Tonne						5.45	
	Stair Case @ GF	Tonne						0.90	
	RA BILL-2								
	Chejja@ GF	Tonne						0.25	
	Lintel@ GF	Tonne						0.89	
	RA BILL-3								
	Chejja@ GF	Tonne						0.04	
	Lintel@ GF	Tonne						0.06	
	Canteen Footings	Tonne						0.88	
							Total Qty	**30.35**	
							Qty Paid in RA Bill-I	28.23	
							Qty Paid in RA Bill-II	1.13	
							Qty to be Paid	**0.99**	**Tonne**

DSR INFRATECH Date BENGALURU

CONTRACTOR PMC ASSISTANT ENGINEER ASSISTANT EXECUTIVE ENGINEER

Asst. Executive Engineer
Project Division

3nd AND PART BILL

Detailed Measurements Of Reinforcement

Pre Measurements Recorded On:

Sl. No	Member details	size in meter			No of elements	Dia of bar	Main Bars calc		Distribution bars calc		No. of bar	Cutting length	Total Cutting length	8	10	12	16	20	25
		L	B	H			L	Spacing	L	Spacing									
	Chajja Reinforcement																		
I	**Ground Floor**																		
	Chajja																		
	Window (W1)	0.60	2.10	0.075															
	Main Bar				3	8	0.6	0.13			6	1.294	23.292	23.292					
	Distribution Bar				3	8	2.10	0.2			12	2.06	74.16	74.16					
														97.45	0.00	0.00	0.00	0.00	0.00
														0.395	0.617	0.889	1.580	2.469	3.858
														38.50	0.00	0.00	0.00	0.00	0.00
													Total kgs	38.50					
													Total in kg	38.50					
													Total tonne	**0.038**	**TONNE**				
	Lintel reinforcement																		
I	**Ground Floor**																		
	Lintel Beam																		
	GROUND FIOOR																		
	Along Grid 1																		
	B/W grid A and B	6.80	0.10	0.15															
	Top Main Bar				1	8	6.80				2	6.75	13.50	13.50					
	Bottom Main Bar				1	8	6.80				2	6.75	13.50	13.50					
	Stirrups				1	8	6.80	0.15			46	0.43	19.69	19.69					
	Along Grid 2																		
	B/W grid A and B	6.80	0.10	0.15	1	8													
	Top Main Bar				1	8	6.80				2	6.75	13.50	13.50					
	Bottom Main Bar				1	8	6.80				2	6.75	13.50	13.50					
	Stirrups				1	8	6.80	0.15			46	0.43	19.69	19.69					
	Along Grid A																		
	B/W grid 1 and 2	3.50	0.10	0.15	1	8													
	Top Main Bar				1	8	3.50				2	3.45	6.90	6.90					
	Bottom Main Bar				1	8	3.50				2	3.45	6.90	6.90					
	Stirrups				1	8	3.50	0.15			24	0.43	10.27	10.27					
	Between grid C and D																		
	Along Grid B																		
	B/W grid 1 and 2	3.50	0.10	0.15															
	Top Main Bar				1	8	3.50				2	3.45	6.90	6.90					
	Bottom Main Bar				1	8	3.50				2	3.45	6.90	6.90					
	Stirrups				1	8	3.50	0.15			24	0.43	10.27	10.27					
	Between grid 1 and 2																		

DSR INFRATECH Date ..... BENGALURU

CONTRACTOR PMC ASSISTANT ENGINEER Asst. Executive Engineer ASSISTANT EXECUTIVE ENGINEER Project Division

Pre Measurements Recorded On:

Sl. No	Member details	size in meter			No of elements	Dia of bar	Main Bars calc		Distribution bars calc		No. of bar	Cutting length	Total Cutting length	8	10	12	16	20	25
		L	B	H			L	Spacing	L	Spacing									
	B/W grid A and B																		
	B/W grid 3 and 4	3.10	0.08	0.15	1	8													
	Top Main Bar				1	8	3.10				2	3.05	6.10	6.10					
	Bottom Main Bar				1	8	3.10				2	3.05	6.10	6.10					
	Stirrups				1	8	3.10	0.15			22	0.43	9.42	9.42					
														163.14	0.00	0.00	0.00	0.00	0.00
														0.395	0.617	0.889	1.580	2.469	3.858
														64.45	0.00	0.00	0.00	0.00	0.00
													Total kgs	64.45					
													Total in kg	64.45					
													Total on tonne	0.064	TONNE				
	Canteen Shed Foundation																		
	Footing	1.50	1.50	0.60															
	Bot mat -Main				10	10	1.40	0.15			10	2	200		200				
	Distri				10	10			1.40	0.15	10	2	200		200				
	Top mat -Main				10	10	1.40	0.15			10	2	200		200				
	Distri				10	10			1.40	0.15	10	2	200		200				
	Pedestals	0.30	0.30	1.50															
	Vertical bar				10	16					8	2.7	216				216		
	Stirrups				10	8		0.15			10	1.2	120	120					
														120.000	800.000	0.000	216.000	0.000	0.000
														0.395	0.617	0.889	1.580	2.469	3.858
														47.41	493.83	0.00	341.33	0.00	0.00
													Total kgs	47.41	493.83	0.00	341.33	0.00	0.00
													Total in kg	882.57					
													Total on tonne	0.88	TONNE				

DSR INFRA TECH Date..... BENGALURU

CONTRACTOR

PMC

ASSISTANT ENGINEER

Asst. Executive Engineer
Project Division

ASSISTANT EXECUTIVE ENGINEER